

UNIX Pipe Examples

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```
source | filter | sink
```

Filters are generally multi-purpose. Most of them can be used as sources or sinks as well. Normal output goes to stdout, filters and sinks read from stdin, errors go to stderr.

Sources

Command	Purpose	Useful options
cat	Print a file to stdout or combine multiple files	
echo	Print static text or value of an environmental variable	
find	Find files with certain characteristics	
ls	List the contents of directories	-l, -R
seq	Create lists of numbers	

Filters

Command	Purpose	Useful options
awk	Modify delimited text	
bc	Calculator	
cut	Parse delimited text files	-d, -f
grep	Search contents for search term	
head	Shows first few lines of input	-n
sed	Modify text	
sort	Alphabetically or numerically sort input	-n
tail	Shows last few lines of input	-n
tee	Write stdin to file and pass to stdout	
uniq	Filters out duplicate lines	-c
xargs	Construct argument lists for commands	

Sinks

Command	Purpose	Useful options
less	View and search multiple pages of text	
mail	Send an email	
wc	Count lines, words, and bytes	-l

Hints

Get rid of extraneous errors by discarding stderr: `2> /dev/null`

Examples

Count number of lines in *file* that contain *text* `grep text file | wc -l`

Show the largest files in the current directory `ls -h1S | head`